



Department of
Primary Industries and
Regional Development

Journal of the Department of Agriculture, Western Australia, Series 3

Volume 6
Number 5 *September-October, 1957*

Article 24

9-1957

Spring sown oats for hay - Variety trials Denmark Research Station.

F. E. Ryan

V. Weston

A. S. James

Follow this and additional works at: https://library.dpird.wa.gov.au/journal_agriculture3

Recommended Citation

Ryan, F. E.; Weston, V.; and James, A. S. (1957) "Spring sown oats for hay - Variety trials Denmark Research Station.," *Journal of the Department of Agriculture, Western Australia, Series 3*: Vol. 6: No. 5, Article 24. Available at: https://library.dpird.wa.gov.au/journal_agriculture3/vol6/iss5/24

This article is brought to you for free and open access by the Agriculture at Digital Library. It has been accepted for inclusion in *Journal of the Department of Agriculture, Western Australia, Series 3* by an authorized administrator of Digital Library. For more information, please contact library@dpird.wa.gov.au.

Spring Sown Oats for Hay

VARIETY TRIALS AT THE DENMARK RESEARCH STATION

BY

F. E. RYAN,
AGROSTOLOGIST

V. WESTON,
MANAGER DENMARK RESEARCH STATION

A. S. JAMES,
TECHNICIAN

THE practice of ploughing paddocks in late winter or early spring and the sowing of oats in August and September to cut for hay in November has many advantages in the higher rainfall areas in the south of the State. Trials conducted at the Denmark Research Station from 1954 onward indicate that Fulghum, Kent and Avon oats are the most suitable varieties for spring planting in that district.

The advantages referred to may be briefly listed as follows:—

- (1) Spring sowing helps to relieve the pressure of work in the autumn.
- (2) Paddocks which are ploughed in autumn frequently become too wet to graze during the winter months, but if left unploughed until spring they are available for grazing during the autumn and winter when pasture growth is short, and are taken out of the grazing area at a time when there is usually adequate pasture growth on the remainder of the farm.
- (3) Control of annual weeds which germinate in the autumn can be achieved by late winter or spring ploughing if this is done before the weeds flower.
- (4) The area on which the spring-sown oats are grown is available for re-sowing with pasture species early next autumn, that is after a brief cropping period.
- (5) Because the main cultivation is carried out in the year preceding the sowing down of new pasture, the seed bed is given a chance to consolidate and the newly-sown pastures are less likely to become waterlogged during the autumn and winter.
- (6) The spring-sown oats are usually cut for hay after the meadow hay has been cut, thus spreading the work in late spring and early summer. This extended hay-cutting period permits larger areas to be cut for hay.

VARIETIES TESTED

Early or mid-season oat varieties appeared to be most suitable for the trials and the following were included:—Fulghum, Ballidu, Orient, Wongan, Avon, W.32 and Kent.

Each variety was cut for hay when the grain had reached the milky stage. All varieties tended to reach this stage at approximately the same time with only about a week between the earliest and latest varieties. The sowing and cutting dates for the three years are shown in Table 1.

TABLE 1—TIMES OF SOWING AND CUTTING.

Variety.	1954.		1955.		1956.	
	Sown.	Cut for Hay.	Sown.	Cut for Hay.	Sown.	Cut for Hay.
Fulghum	Aug. 24	Nov. 25	Aug. 16	Nov. 25	Aug. 16	Nov. 23
Ballidu	Aug. 24	Nov. 25	Aug. 16	Nov. 25	Aug. 16	Nov. 23
Orient	Aug. 24	Nov. 29	Aug. 16	Dec. 1	Aug. 16	Nov. 23
Wongan	Aug. 24	Nov. 22	Aug. 16	Nov. 25	Aug. 16	Nov. 23
Avon	Aug. 24	Nov. 29	Aug. 16	Nov. 25	Aug. 16	Nov. 19
W.32	Aug. 24	Nov. 25	Aug. 16	Nov. 28	Aug. 16	Nov. 22
Kent	Aug. 16	Nov. 25	Aug. 16
						Nov. 22

1954 TRIAL

After seeding on August 24, 1954, an unusually hot period with below average rainfall occurred until October 28. Good falls of rain were recorded on October 28 and during November. The oat plants which had lacked vigour before this rain, then grew vigorously during the last four weeks and cutting was completed by November 29. Yields of hay are shown in Table 2.

TABLE 2—1954.

Variety.	Cutting Date (Milky Stage).	Air Dry Yields.	
		Cwts. per Acre.	Percentage of Fulghum (Control).
Fulghum	Nov. 25	46.0	100
W.32	Nov. 25	43.9	95
Avon (W.29)	Nov. 29	42.5	92
Ballidu	Nov. 25	27.5	60
Wongan	Nov. 22	25.4	55
Orient	Nov. 29	24.3	53

Three varieties, Fulghum, W.32 and Avon were outstanding in this trial and were much superior to Ballidu, Wongan and Orient.

1955 TRIAL

The sowing this year was on August 16, under wet conditions which continued throughout the trial—a total of 15½ in. of rain being recorded between sowing and cutting for hay. Plants generally lacked vigour and tillering was poor. The yields were below average and are shown in Table 3.

TABLE 3—1955

Variety.	Cutting Date (Milky Stage).	Air Dry Yields.	
		Cwts. per Acre.	Percentage of Fulghum (Control).
Avon	Nov. 25	18.2	144
Ballidu	Nov. 25	14.5	114
Kent (W. 30)	Nov. 25	14.3	112
W. 32	Nov. 25	14.3	112
Fulghum	Nov. 25	12.7	100
Wongan	Nov. 25	11.3	89
Orient	Nov. 25	8.7	68

All varieties were cut on November 25, 1955. Yields were low and the differences between varieties were not statistically significant. As might be expected under such wet conditions, the plots were very variable.

1956 TRIAL

After sowing was completed in August 16, favourable growing conditions were experienced. A total of 971 points of rain fell during the growing period and yields of hay were satisfactory as indicated in Table 4.

TABLE 4—1956.

Variety.	Cutting Date (Milky Stage).	Air Dry Yields.	
		Cwts. per Acre.	Percentage of Fulghum (Control).
Kent	Nov. 22	41.5	108
Fulghum	Nov. 23	38.3	100
Avon	Nov. 22	36.1	94
Ballidu	Nov. 23	25.7	67
Wongan	Nov. 19	24.7	65
Orient	Nov. 23	21.8	57

The three varieties, Kent, Fulghum and Avon were outstanding in this trial, yields from Ballidu, Wongan and Avon being poor by comparison.

DISCUSSION

Fulghum, Kent and Avon are clearly superior to Wongan, Ballidu and Orient for spring sowing and can be recommended for the Denmark district. W.32, although it yielded well in the 1954 trial was discarded by the plant-breeders as it failed to measure up to the required standards in most of the cereal-growing areas of the State and was replaced by Kent in the 1956 trials.

The fact that the best of the varieties yielded almost twice as much hay as the poorest variety tested, emphasises the importance of purchasing seed oats of a named variety. Unfortunately, many farmers merely ask for "seed oats" or even use a line of feed oats for sowing for hay.

Yields, in general, were good throughout the trials. Water-logged conditions prevented maximum growth in 1955, but in the other two years, air-dried yields of over 2 tons to the acre were obtained from the best varieties and the average yield for all varieties was over 33 cwts. per acre. This yield was obtained during the three and a half months from mid-August to November when pasture growth is normally at its maximum and when the farmer can most easily make land available for hay production.